

DETAILED ACTION

1. This Office Action is responsive to amendments filed for No. 10/568,416 on August 16, 2011. Claims 1-6 and 8-11 are pending and have been examined.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. **Claims 1-6 and 8-11** are rejected under 35 U.S.C. 103(a) as being unpatentable over Yukio (JP 2002-259054) in view of Higuchi et al. (US 6,312,263 B1). Please note the Yukio reference is an art described in the background of the present invention and is shown in Figure 7. Furthermore, a copy of this reference has been provided in a previous Office Action.

Yukio teaches in Claim 1:

A transparent touch panel comprising:

a transparent first substrate (**Drawing 2, substrate 130, [0017] discloses a glass material**) and a second substrate (**Drawing 2, substrate 110**) each having a transparent electro-conductive layer on one surface thereof (**Drawing 2, [0016]-[0017] shows electro-conductive layers 111 and 131**), the transparent first substrate and the second substrate being arranged with a predetermined interval between each other in such a manner that the transparent electro-conductive layers are facing each other (**Drawing 2 shows the interval between the two substrates with insert pad 142. Also please note spacers 160, which are formed in between the two substrates**), each transparent electro-conductive layer including a respective pair of electrodes disposed on each end (**Drawing 2, [0016]-[0019], please note electrodes 112 (on each end) for the substrate 110 and electrodes 132 (on each end) for the substrate 130 as well**)

a plurality of lead-out terminals being connected to the electrodes through surrounding circuits extending to the peripheral edges of the first substrate and the second substrate, the lead-out terminals each being arranged on the opposing surfaces of the first substrate and the second substrate (**Drawing 2, [0016]-[0019], shows peripheral terminals 114 (read as lead-out terminals) on the substrate 110 and terminals 134 on the substrate 130. Also please note the wiring connecting them to the terminals, notably circuit pattern 113 (read as surrounding circuits). Drawing 2 further shows that the terminals are arranged on opposing surfaces facing each other, so that they can be bonded together**); but

Yukio does not explicitly teach of “a plurality of holding members that pinch a peripheral edge of only the transparent first substrate so as to sandwich a periphery of the transparent first substrate, the holding member being formed of an electro-conductive material and arranged so that each holding member includes a portion inserted between the transparent first substrate and the second substrate and in contact with at least one respective lead-out terminal of either the first or second substrate” and as an extension of that “each of the transparent first substrate and the second substrate including at least one of the lead-out terminals thereof being in contact with at least one of the holding members”.

However, in the same field of endeavor, substrate structure, Higuchi teaches in Figure 10 of U-shaped portion 33, each for a plurality of contacts 32, (Higuchi, Figure 10, Column 4, Lines 58-65). Please note that it pinches a peripheral edge of only board 21 (read as substrate and please see combination with Yukio below), is formed of an electro-conductive material (Column 3, Lines 19-20 disclose the contacts are conductive so that they can contact electrode patterns 25 and 26) and is arranged so that each contact includes a hairpin-shaped portion 34 is inserted between the two boards 21 and 22 and the contact 32 is contact with both of the electrode patterns 25 and 26 (read as lead-out terminals). Please note that both boards have a pattern and from Figure 10, it is clear that the contact 22 is contacting at least one of them. As combined with Yukio, the contacts of Higuchi can be used to sandwich just one of Yukio's substrates, such as pinching the glass substrate, and to be connected with the terminals of Yukio. Several KSR principles can be applied here, such as well known technique (clips/clamps on the ends of substrates are well known to pinch the substrate leading to a more compact structure), simple

substitution of parts (given the button can be easily implemented in Yukio along the periphery to connect the substrate to the terminals) and obvious to try (given that with the well known benefits and need for a more compact structure, one of ordinary skill would realize to pinch the substrate or minimize their space).

Therefore, it would be obvious to one of ordinary skill in the art, at the time of the invention, to implement the plurality of contacts, as taught by Higuchi, with Yukio's substrate device, with the motivation of the KSR principles above and that by sandwiching the substrate, several benefits can be achieved, such as freeing the boards from short-circuiting, increased durability and reworkability and compactness, (Higuchi, Columns 1-2, LInes 61-4).

Yukio and Higuchi teach in Claim 2:

The transparent touch panel according to claim 1, wherein the thickness of the portions of the holding members inserted between the transparent first substrate and the second substrate is 0.5 to 2 times the space between the transparent first substrate and the second substrate. (**Respectfully, this is an optimization issue and according to KSR principles and case law, a design choice to obtain a smaller device. One of ordinary skill in the art would realize to design the thickness so that the buttons would be sufficient to fit around the substrate and to provide an adequate space between the two substrates. Please note that Yukio also has spacers to provide distancing between the two substrates, so it is an issue that is relevant to his invention as well that he seeks to address. Please note the combination to teach of the contacts, as taught by Higuchi, for the same reasoning, to vary the thickness)**

Yukio and Higuchi teach in Claim 3:

The transparent touch panel according to claim 1, comprising notched portions formed in a portion of the second substrate which is in contact with the holding members. (**Yukio, Drawing 2, [0018] shows insert part 142, formed in the second substrate. Please note the combination with Higuchi to place the contacts in this region, with regards to the terminals 114 and 134)**

Yukio and Higuchi teach in Claim 4:

The transparent touch panel according to claim 1, wherein the transparent first substrate has a plurality of groove portions in the surface opposite to the surface on which the transparent electro-conductive layer is formed, and the holding members are held in groove portions. (**Examiner asserts Official Notice to substrates formed with grooves so that the contacts/clips/connectors can be firmly secured. Respectfully, 3D molded substrates are well known in the art which can deform parts of the substrate and the combination of the two references teaches to use the buttons to firmly press the substrate(s), so having a molded substrate in which the buttons could form into would be obvious to one of ordinary skill in the art to allow for the buttons to further press down and with the motivation that the buttons would not come out easily and possibly damage the device entirely. Please note KSR principles such as known technique (substrates with recesses), obvious to try to yield predictable results (obvious to have to provide firm connection for the buttons since finding**

a secure connection is an issue in the art for these buttons) and simple substitution (having a molded substrate would not destroy Yukio))

Yukio teaches in Claim 5:

The transparent touch panel according to claim 1, wherein the transparent first substrate is a fixed substrate. (**[0002] of the present invention, which discloses the Yukio invention, notes that 130 is a fixed substrate. Also please note [0017] of Yukio)**

Yukio and Higuchi teach in Claim 6:

An electronic apparatus comprising the transparent touch panel of claim 1 and a display apparatus including electrically-conductive connecting terminals, the transparent touch panel being disposed on a display surface side of the display apparatus, and the holding members being in direct contact with the connecting terminals, whereby the apparatus and the lead-out terminals are electrically coupled. (**Respectfully, it is obvious the transparent side is disposed on the display surface side of the touch panel, Drawing 2 of Yukio shows the terminals being electrically coupled by the circuit pattern 133 for receiving and sending display signals from the appropriate drivers and the combination with Higuchi teaches to use the contacts with the terminals)**

Higuchi teaches in Claim 8:

The transparent touch panel according to claim 1, wherein the holding member are U-shaped and an interior of the U overlaps the at least one peripheral edge of the transparent first

substrate. (**Higuchi, Figure 10, Column 4, Lines 62-65 disclose the U-shaped portion and an interior part overlaps the peripheral edge of board 21**)

Yukio and Higuchi teach in Claim 9:

The electronic apparatus according to claim 6, wherein the holding members are U-shaped, an interior of the U overlaps the at least one peripheral edge of the transparent first substrate (**Higuchi, Figure 10, Column 4, Lines 62-65 disclose the U-shaped portion and an interior part overlaps the peripheral edge of board 21**), and the connecting terminals are in direct contact with a leg of the U-shape. (**The combination with Yukio teaches to place the contacts over the terminals 114/134. Please note the similar relationship with Higuchi's electrode patterns 25 and 26**)

Higuchi teaches in Claim 10:

The transparent touch panel according to claim 1, wherein the peripheral edge of the transparent first substrate is sandwiched between an upper-side surface and a lower-side surface of each holding member. (**Higuchi, Figure 10 shows the upper and lower surfaces of board 21 to be sandwiched between the contact 32**)

Yukio and Higuchi teach in Claim 11:

The transparent touch panel according to claim 3, wherein a warp of the notched portions generates pressing force between the movable substrate and the holding members. (**Respectfully, the combination teaches to place the conductor parts over the terminals**

through the notched portions, please see Drawing 2 of Yukio and the 103 combination above. The contacts are designed to press the substrates from both ends, obviously creating a pressing force, please see the sandwiching descriptions in Higuchi and that as a result of it, the device is compacted/minimized in size)

Response to Arguments

5. Applicant's arguments with respect to claim 1-6 and 8-11 have been considered and are respectfully moot in grounds of new rejection(s).

The Bachus reference has been removed and a new reference, Higuchi, has been substituted in its place. This shows a better view of the contact being "between" the two substrates as Applicant did not feel that Bachus taught this. Both reference teach of the claimed lead-out terminals and seeing as how Applicant already suggested that Bachus's conductor track 5 was akin to the lead-out terminals of the present invention, examiner does not see any issue on whether or not the electrode patterns 25 and 26 being equated the same way. Furthermore, please see Figures 8A-C for the layers including the terminals as well. Either way, it is clear that Higuchi's contact 32 is in contact with both substrates (even though the claim language only requires that one be in contact). Please note that the structure of Yukio, with the two substrates, is what the contacts of Higuchi are being placed around.

As a result of the new grounds of rejection, Applicant's arguments are moot.

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DENNIS P. JOSEPH whose telephone number is (571)270-1459. The examiner can normally be reached on Monday-Friday, 8am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amr Awad can be reached on 571-272-7764. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/DENNIS JOSEPH/

Examiner, Art Unit 2629

/Amr Awad/

Supervisory Patent Examiner, Art Unit 2629